WHAT IS CLAIMED IS:

1. A transmission system comprising a plurality of nodes forming a network and a supervisory control device for managing said network on the basis of performance data created at these nodes, wherein

each of said plurality of nodes includes

performance data generating means for measuring individual data items about the monitoring items defined for a plurality of objects to be measured according to a specific schedule and, on the basis of the result of the measurement, creating said performance data using a zero suppression function of suppressing a succession of zero data items, and

performance data sending means for sending the performance data created at the performance data generating means to said supervisory control device, and

said supervisory control device includes

reception means for receiving the performance data send from said nodes,

storage means for accumulating a history of the received performance data,

user interface means for accepting the user's data output request with specified retrieval conditions including a time range and outputting the data fulfilling the request, and

output control means which determines the

cause that the performance data is absent, when the performance data that should be present in said storage means according to said schedule is absent in the time range specified in said retrieval conditions in acquiring the performance data fulfilling said retrieval conditions from said storage means, and if the cause is the execution of zero suppression at said performance data generating means, makes the data item related to the absent performance data zero, and which then creates data for output at said user interface means on the basis of said acquired performance data and causes said user interface means to output the created data.

2. The transmission system according to claim 1, wherein each of said nodes includes

sub-storage means for accumulating a history of the performance data created as said performance data generating means, and

said supervisory control device includes

performance data acquiring means for acquiring the performance data created at said nodes and storing the information in the storage means of its own device, and

lacked data acquiring means for, when there is a lack in the performance data stored in the storage means of its own device, acquiring the lacked performance data from the sub-storage means of said node and storing it in the storage means of its own

device.

3. The transmission system according to claim 1 or 2, wherein said output control means includes

time management means for updating and storing time Tc that said reception means received the performance data last,

period acquiring means for acquiring period T1 in which said data is measured at said performance data generating means,

first judging means for judging whether the time that performance data is to be created in said period T1 is present between Tc and T according to whether the expression $T - Tc > T1$ holds, provided that the time closest to the present time in the time range specified in said retrieval conditions is T,

number-of-omissions acquiring means for, if the first judging means has judged that the time that performance data is to be created is present, acquiring the number Ns of times the creation of performance data was omitted by said zero suppression function,

second judging means for judging whether the execution of zero suppression is present or absent according to whether the expression $Ns \cdot T1 < T - Tc \leqq (Ns + 1) \cdot T1$ holds, and

output data creating means for, if the second judging means has judged that the execution of zero suppression is present, making the data item related to

said absent performance data zero and creating data for output at said user interface means on the basis of said read-out performance data and causing said user interface means to output the created data.

4. A transmission system comprising a plurality of nodes forming a network and a supervisory control device for managing said network on the basis of performance data created at these nodes, wherein

each of said plurality of nodes includes

performance data generating means for measuring individual data items about the monitoring items defined for a plurality of objects to be measured according to a specific schedule and, on the basis of the result of the measurement, creating said performance data using a zero suppression function of suppressing a succession of zero data items,

storage means for accumulating a history of the performance data created at the performance data generating means, and

retrieval means for searching said storage means according to retrieval conditions requested by said supervisory control device and acquiring the performance data fulfilling the retrieval conditions, and

performance data sending means for sending the performance data acquired by the retrieval means to said supervisory control device, and

said supervisory control device includes

user interface means for accepting the user's data output request with specified retrieval conditions including a time range and outputting the data fulfilling the request,

performance data acquiring means for acquiring the performance data fulfilling said retrieval conditions from said nodes, and

output control means which determines the cause that the performance data is absent, when the performance data that should be present in said storage means according to said schedule is absent in the time range specified in said retrieval conditions in acquiring the performance data fulfilling said retrieval conditions from said nodes, and if the cause is the execution of zero suppression at said performance data generating means, makes the data item related to the absent performance data zero, and which then creates data for output at said user interface means on the basis of said acquired performance data and causes said user interface means to output the created data.

5. The transmission system according to claim 4, wherein said output control means includes

time management means for updating and storing time Tc that said performance data acquiring means acquired performance data last,

period acquiring means for acquiring period T1 in which said data is measured at said performance data generating means,

first judging means for judging whether the time that performance data is to be created in said period T1 is present between Tc and T according to whether the expression $T - Tc > T1$ holds, provided that the time closest to the present time in the time range specified in said retrieval conditions is T,

number-of-omissions acquiring means for, if the first judging means has judged that the time that performance data is to be created is present, acquiring the number Ns of times the creation of performance data was omitted by said zero suppression function,

second judging means for judging whether the execution of zero suppression is present or absent according to whether the expression $Ns \cdot T1 < T - Tc \leqq (Ns + 1) \cdot T1$ holds, and

output data creating means for, if the second judging means has judged that the execution of zero suppression is present, making the data item related to said absent performance data zero and creating data for output at said user interface means on the basis of said read-out performance data and causing said user interface means to output the created data.

6. A supervisory control device for managing a network composed of a plurality of nodes on the basis

of the performance data created at each node, each of said plurality of nodes including performance data generating means for measuring individual data items about the monitoring items defined for a plurality of objects to be measured according to a specific schedule and, on the basis of the result of the measurement, creating said performance data using a zero suppression function of suppressing a succession of zero data items, said supervisory control device comprising:

storage means for storing a history of said created performance data;

user interface means for accepting the user's data output request with specified retrieval conditions for said performance data including at least a time range and outputting the performance data fulfilling the request, and

output control means which determines the cause that the performance data is absent, when the performance data that should be present according to said schedule is absent in the time range specified in said retrieval conditions in acquiring the performance data fulfilling said performance data retrieval conditions from said storage means, and if the cause is the execution of zero suppression at said performance data generating means, makes the data item related to the absent performance data zero, and which then creates data for output at said user interface means on

the basis of the acquired performance data and causes said user interface means to output the created data.

7. The supervisory control device according to claim 6, wherein each of said nodes includes

sub-storage means for accumulating a history of the performance data created at said performance data generating means,

performance data acquiring means for acquiring the performance data created at said nodes and storing it in the storage means of its own device, and

lacked data acquiring means for, when there is a lack in the performance data stored in the storage means of its own device, acquiring the lacked performance data from the sub-storage means of said node and storing it in the storage means of its own device.

8. The supervisory control device according to claim 6 or 7, wherein said output control means includes

time management means for updating and storing time Tc that said reception means received the performance data last,

period acquiring means for acquiring period T1 in which said data is measured at said performance data generating means,

first judging means for judging whether the time that performance data is to be created in said period

T1 is present between Tc and T according to whether the expression T - Tc > T1 holds, provided that the time closest to the present time in the time range specified in said retrieval conditions is T,

number-of-omissions acquiring means for, if the first judging means has judged that the time that performance data is to be created is present, acquiring the number Ns of times the creation of performance data was omitted by said zero suppression function,

second judging means for judging whether the execution of zero suppression is present or absent according to whether the expression $Ns \cdot T1 < T - Tc \leqq (Ns + 1) \cdot T1$ holds, and

output data creating means for, if the second judging means has judged that the execution of zero suppression is present, making the data item related to said absent performance data zero and creating data for output at said user interface means on the basis of said read-out performance data and causing said user interface means to output the created data.

9. A supervisory control device for managing a network composed of a plurality of nodes on the basis of the performance data created at each node, each of said plurality of nodes including

performance data generating means for measuring individual data items about the monitoring items defined for a plurality of objects to be measured

according to a specific schedule and, on the basis of the result of the measurement, creating said performance data using a zero suppression function of suppressing a succession of zero data items,

storage means for storing a history of the performance data created at said performance data generating means,

retrieval means for searching said storage means according to retrieval conditions requested by said supervisory control device and acquiring the performance data fulfilling the retrieval conditions, and

performance data sending means for sending the performance data acquired by the retrieval means to said supervisory control device, said supervisory control device comprising:

user interface means for accepting the user's data output request with specified retrieval conditions including a time range and outputting the performance data fulfilling the request,

performance data acquiring means for acquiring the performance data fulfilling said retrieval conditions from said nodes, and

output control means which determines the cause that the performance data is absent, when the performance data that should be present according to said schedule is absent in the time range specified in

said retrieval conditions in acquiring the performance data fulfilling said retrieval conditions from said node, and if the cause is the execution of zero suppression at said performance data generating means, makes the data item related to the absent performance data zero, and which then creates data for output at said user interface means on the basis of said acquired performance data and causes said user interface means to output the created data.

10. The supervisory control device according to claim 9, wherein said output control means includes

time management means for updating and storing time Tc that said performance data acquiring means acquired the performance data last,

period acquiring means for acquiring period T1 in which said data is measured at said performance data generating means,

first judging means for judging whether the time that performance data is to be created in said period T1 is present between Tc and T according to whether the expression T - Tc > T1 holds, provided that the time closest to the present time in the time range specified in said retrieval conditions is T,

number-of-omissions acquiring means for, if the first judging means has judged that the time that performance data is to be created is present, acquiring the number Ns of times the creation of performance data

was omitted by said zero suppression function,

second judging means for judging whether the execution of zero suppression is present or absent according to whether the expression $Ns \cdot T1 < T - Tc \leqq (Ns + 1) \cdot T1$ holds, and

output data creating means for, if the second judging means has judged that the execution of zero suppression is present, making the data item related to said absent performance data zero and creating data for output at said user interface means on the basis of said read-out performance data and causing said user interface means to output the created data.

11. A data outputting method in a supervisory control device which manages a network composed of a plurality of nodes for measuring individual data items about the monitoring items defined for a plurality of objects to be measured according to a specific schedule and, on the basis of the result of the measurement, creating said performance data using a zero suppression function of suppressing a succession of zero data items, and which includes storage means for accumulating a history of said created performance data, said data outputting method comprising:

a first step of, in response to the operation of requesting the output of data under specified retrieval conditions including at least a time range, judging the presence or absence of the possibility that

indefiniteness will occur in the data outputted in said specified time range;

a second step of determining the cause, if it is judged at the first step that there is a possibility that said indefinite column will occur; and

a third step of inserting 0s in the indefinite column and thereby restructuring the data to be supplied to an output process, if it is judged at the second step that the cause of the occurrence of said indefinite column is the execution of said zero suppression function.

12. The data output method according to claim 11, wherein said first step acquires time Tc that performance data was created last and period T1 in which quality data is totalized at said node, and judges the presence or absence of the possibility that said indefinite column will occur according to whether the expression $T - Tc > T1$ holds, provided that the time closest to the present time in the time range specified in said retrieval conditions is T, and

said second step acquires the number Ns of times the creation of performance data was omitted by said zero suppression function at said node and determines the cause of the occurrence of said indefinite column by checking whether the expression $Ns \cdot T1 < T - Tc \leqq (Ns + 1) \cdot T1$ holds.

13. The data output method according to claim 12,

further comprising a fourth step of, if T - Tc > (Ns + 1)·T1 holds at said second step, regarding the performance data to be stored in said storage means as having a lack in it and restoring the performance data.

14. Nodes which are connected via a communication circuit and constitute a network and which transmit communication data over the network, each of said nodes comprising:

performance data generating means for measuring individual data items about the monitoring items defined for a plurality of objects to be measured according to a specific schedule and, on the basis of the result of the measurement, creating performance data; and

message creating means for dividing the data items forming said performance data into the parts common to the individual pieces of performance data and the parts not common to the individual pieces of performance data, and adding a plurality of non-common parts to one common part to create a performance data message.

15. In a transmission system including a plurality of nodes and a supervisory control device for managing a network composed of these nodes, each of said nodes comprising:

performance data generating means for measuring individual data items about the monitoring items defined for a plurality of objects to be measured

according to a specific schedule and, on the basis of the result of the measurement, creating performance data;

notifying means for notifying the performance data created by the performance data generating means to said supervisory control device; and

timing setting means for setting the timing for the notifying means to notify performance data for each piece of performance data according to the configuration information about its own device.